

Case Report

Plastic bag asphyxia – A case report [☆]

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Abstract

Suicides due to plastic bag asphyxia have been reported in the literature but remain unusual. The circumstances of such deaths are reviewed and illustrated by the case of a 32-year-old male who was found dead in a lorry cab. The remarkable point is that the victim followed instructions from an American movie he had watched. This case emphasizes the importance of the investigation to determine the manner of death.

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1. Introduction

Plastic bag asphyxia is not common.¹ The mechanism of death is usually due to suffocation.² The manner of death can be accidental, suicidal or homicidal and can often be determined only by the physical evidence at the scene of death and a proper investigation. We report a suicidal death due to plastic bag asphyxia. The death followed the viewing of an American movie in which detailed step-by-step description of the suicidal process is given.

2. Case report

A 32 year-old lorry driver was found dead in his lorry cab. The lorry was parked on the hard shoulder of a B-road. The police noticed that the left front door was locked but the right door was unlocked. The windows were rolled up. A curtain was closed through the windshield, which is

usually the case when the lorry driver wants to sleep. Keys were in the ignition but the ignition was off. The driver's clothes were across the left seat which was tilted forward. There was no suicide note, no relevant odor, no pornographic material, no paraphernalia. The DVD of an American movie was found in the glove compartment. The body was found behind the seats, on the back of the lorry cab. He was lying on the sleeper berth (Fig. 1). His head was wrapped in a supermarket shopping bag which was knotted at the back of the neck. The open end of the bag was also tied around the neck with a string which was knotted at the front of the neck (Fig. 2). The man's wrists were bound behind his back by the same kind of string used for the neck (Fig. 3). There was neither sign of struggle at scene nor evidence of violence and the lorry cab seemed to be undisturbed. However, the police initially handled the case as a homicide.

The external examination of the body showed that the lividities were fixed and anterior, consistent with the position of the body. There was a severe cyanosis of the face, but no moisture inside the bag. Ligation marks were seen around the neck and wrists, with furrows related to the string used to tie these body extremities. There were neither stigmata of intravenous drug administration nor external

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Fig. 1. Decedent found on the sleeper berth of the lorry cab.



Fig. 2. String knotted above the plastic bag.



Fig. 3. Wrists bound with a string behind the back of the victim.

evidence of trauma. The autopsy showed thin hemorrhages in the neck muscles and congested lungs. Lymph nodes were present around the neck muscles. There were no facial or conjunctival petechiae. No injuries were found in the body. Microscopic examination confirmed prominent congestion of the lungs. Post-mortem toxicology was negative.

The investigation showed that the deceased had neither prior suicide attempts nor history of depression. He was

officially happily married with a young child. However he had been diagnosed with HIV-seropositivity two days prior to his death. According to his private physician, he did not want his wife to know about the diagnosis. As a part of the investigation, the police decided to watch the DVD found in the glove compartment. It was a 2003 American movie, in which it appeared that a woman was found lying on her kitchen floor, handcuffed with a plastic bag over the head. During the entire movie the death was handled as a homicide, but the ending revealed she had committed suicide and concealed it so that the main character would be charged with murder. There was long sequence in which the whole suicide process is detailed.

Due to the lack of evidence of foul play and although our victim had left no suicide note and not expressed his intent of committing suicide, the conclusion of the investigation was that the man used a plastic bag to produce a fatal asphyxia after learning a fatal diagnosis.

3. Discussion

The manner of death in plastic bag asphyxia is variable, with most cases representing suicides.³ Accidental and homicidal deaths have also been reported. Accidental deaths are not uncommon among children who play with shopping bags⁴ and among solvent abusers.⁵ Another well-known form of accidental death from plastic bag asphyxia is autoerotic asphyxial death, which is mostly seen among adult males.^{3,6–8} Autoerotic death applies to accidental deaths that occur during individual, usually solitary, sexual activity in which some type of apparatus that was used to enhance the sexual stimulation of the deceased caused unintended death. The term autoerotic asphyxial death can be applied to fatal episode that result from asphyxia.⁹ The diagnosis of accidental death during autoerotic practice relies heavily upon circumstantial evidence at the time the body is found (i.e. evidence of bondage, pornographic literature/audio-visual media, cross-dressing, “self-rescue” mechanism).^{10,11} In our case, we did not find such evidence at scene. Homicide by plastic bag asphyxia is rare and usually only occurs if the victim has been sedated or incapacitated prior to the fatal attack, or if there is significant disparity in the size and strength of the perpetrator and victim, so that the victim can not struggle.³ Occasionally attempts may be made to disguise homicidal asphyxia as a suicide. When the perpetrators have removed the bag after death, these cases may even be concluded as natural deaths. In our case, the binding of the wrists may have raised the suspicion of homicide, but neither external nor internal injuries were found at autopsy. Moreover, toxicology was negative. Many suicides by plastic bag asphyxia have been reported. It is considered to be a painless, bloodless and non violent method of self-destruction. To ensure lethality, plastic bag asphyxiation often includes self-poisoning by sedative medications. Less common is plastic bag asphyxiation with gases such as propane, ethyl ether or nitrous oxide.¹² According to the literature, a bimodal

peak in age distribution is observed among the victims, with one peak comprising mainly young adult men and the other mainly older women.¹³ Failed health of the decedent or spouse is the most commonly reported stressor.¹⁴

Suicide by plastic bag asphyxiation leaves few indicators of hypoxia or suffocation. The lack of typical asphyxial autopsy findings makes it a very difficult positive diagnosis to make for the forensic pathologist. Facial and conjunctival petechiae are present in a minority of cases, and are not specific of asphyxia by plastic bag suffocation.¹⁵ According to Saukko and Knight, it seems that even if suffocation may occur, the death is not asphyxial in the hypoxic sense. The mechanism of death is more a rapid cardio-inhibitory mode, rather than a purely hypoxic process.¹⁶ On occasion there may be markings left by the bag around the neck. The most common autopsy findings are pulmonary edema and congestion, in accordance with many authors. Toxicological analysis is essential in these cases. In a review of 110 cases, Bullock et al. reported that one or more drugs were detected in the blood in 93% of cases where toxicologic testing was performed.¹⁷ Moreover, toxicological analysis may enable to make the diagnosis of poisoning by inhalation of toluene¹⁸, ethyl ether¹⁹, propane²⁰ or helium.¹² A detailed examination of the scene of death, not only by the police officers but also by the forensic pathologist, is always useful.

In recent years there have been a number of internet sites and publications describing this method of suicide with quite detailed instructions.^{21,22} Print literature and videotape productions²³ have even demonstrated how to combine inert gas with a plastic bag to hasten death. Sedative medications are also recommended as an adjunct. The Hemlock Society, located in Oregon USA, published a book entitled *Final Exit, the practicalities of self-deliverance and assisted suicide for the dying*²⁴, in 1991. The book advocates the use of plastic bags in combination with drugs as a means of “self-deliverance” from terminal illness or chronic pain. In the year after publication of *Final Exit*, the number of suicides in New York City involving asphyxia by plastic bag increased substantially, as compared with the numbers in previous years. The suicide rate did not change, nor did the number of suicides by other methods.²⁵ A French book entitled *Suicide, Mode d'Emploi*²⁶ (*Suicide, Instructions for Use*) was published in 1982. It was also a “how-to” publication which provided detailed descriptions to minimize the risk of failed suicide. Whether the publication of this book has been responsible for an increase in numbers of suicides in France is unknown. However, the French government banned it in 1991.

In France, there has been a lot of discussion on the role of the everyday mass media in disseminating knowledge about methods of homicide. Several mass murderers were reportedly inspired by a movie they had seen before their acts: a man shot several members of a municipal council after he had watched a violent movie in 2000, and a teenager stabbed his father and mother-in-law after he had seen a horror movie. In 1995 a woman and her boyfriend shot a

taxi driver and three policemen while reportedly screaming out lines from a famously violent movie.

However, this is to our knowledge the first reported case of a suicide “inspired by a movie” in France. Movies usually provide only a one-time exposure to the subject and typically neither advocate suicide nor provide information about how to ensure a fatal outcome.

Our case underlines the importance of the investigation to determine the manner of death. Accident has been ruled out because there was no evidence at the scene to suggest any sort of autoerotic activity or any use of drugs. Homicide was unlikely because there was no sign of struggle in the lorry cab and no sign of self-defense on the body. Further investigation permitted to understand that the deceased committed suicide after watching a movie in which the same process is detailed. The possibility of individuals learning ways from the internet, press but also from commercial movies to harm themselves (or others) should be borne in mind when assessing deaths.

Conflict of interest statement

All authors have participated in the design and execution of this report, concurred with the submission, and have no conflict of interest with respect to the publication of this report.

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